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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/567,763	06/09/2006	Alan Berry	21864USWO/1 (C0384435/0196	3881

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EXAMINER	
SLOBODYANSKY, ELIZABETH	
ART UNIT	**PAPER NUMBER**
1652	
MAIL DATE	**DELIVERY MODE**
04/30/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,763	BERRY ET AL.	
	Examiner	Art Unit	
	Elizabeth Slobodyansky, PhD	1652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *1* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-42* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Election/Restrictions

DETAILED ACTION

This application is a 371 of PCT/CH04/00511 published in English as WO 05/017159 on February 24, 2005.

The preliminary amendment filed February 10, 2006 amending the specification to refer to the international application, amending claims 5-7, 9, 11, 12, 14, 16, 18, 21-23, 25, 28 and 30-36 and adding claims 38-42 has been entered.

The substitute Sequence Listing and the computer readable form thereof filed February 10, 2006 have been entered.

Claims 1-42 are pending.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-8, 1-17 and 22, drawn to a polynucleotide encoding a polypeptide having L-sorbosone dehydrogenase activity comprising SEQ ID NO:1, a vector comprising thereof and a fungal, plant or bacterial organism comprising thereof and a method of making L-sorbosone dehydrogenase.

Group II, claim(s) 1-8, 1-17 and 22, drawn to a polynucleotide encoding a polypeptide having L-sorbosone dehydrogenase activity comprising SEQ ID NO:11, a vector comprising thereof and a fungal, plant or bacterial organism comprising thereof and a method of making L-sorbosone dehydrogenase.

Group III, claim(s) 1-8, 1-17 and 22, drawn to a polynucleotide encoding a polypeptide having L-sorbosone dehydrogenase activity comprising SEQ ID NO:13, a vector comprising thereof and a fungal, plant or bacterial organism comprising thereof and a method of making L-sorbosone dehydrogenase.

Group IV, claim(s) 1-8, 1-17 and 22, drawn to a polynucleotide encoding a polypeptide having L-sorbosone dehydrogenase activity comprising SEQ ID NO:15, a vector comprising thereof and a fungal, plant or bacterial organism comprising thereof and a method of making L-sorbosone dehydrogenase.

Group V, claim(s) 1-8, 1-17 and 22, drawn to a polynucleotide encoding a polypeptide having L-sorbosone dehydrogenase activity comprising SEQ ID NO:17, a vector comprising thereof and a fungal, plant or bacterial organism comprising thereof and a method of making L-sorbosone dehydrogenase.

Group VI, claim(s) 1-8, 1-17 and 22, drawn to a polynucleotide encoding a polypeptide having L-sorbosone dehydrogenase activity comprising SEQ ID NO:19, a vector comprising thereof and a fungal, plant or bacterial organism comprising thereof and a method of making L-sorbosone dehydrogenase.

Group VII, claim(s) 1-8, 1-17 and 22, drawn to a polynucleotide encoding a polypeptide having L-sorbosone dehydrogenase activity comprising SEQ ID NO:21, a vector comprising thereof and a fungal, plant or bacterial organism comprising thereof and a method of making L-sorbosone dehydrogenase.

Group VIII, claim(s) 1-8, 1-17 and 22, drawn to a polynucleotide encoding a polypeptide having L-sorbosone dehydrogenase activity comprising SEQ ID NO:26, a vector comprising thereof and a fungal, plant or bacterial organism comprising thereof and a method of making L-sorbosone dehydrogenase.

Group IX, claim(s) 9-11, drawn to a polypeptide of SEQ ID NO:2.

Group X, claim(s) 9-11, drawn to a polypeptide of SEQ ID NO:12.

Group XI, claim(s) 9-11, drawn to a polypeptide of SEQ ID NO:14.

Group XII, claim(s) 9-11, drawn to a polypeptide of SEQ ID NO:16.

Group XIII, claim(s) 9-11, drawn to a polypeptide of SEQ ID NO:18.

Group XIV, claim(s) 9-11, drawn to a polypeptide of SEQ ID NO:20.

Group XV, claim(s) 9-11, drawn to a polypeptide of SEQ ID NO:22.

Group XVI, claim(s) 9-11, drawn to a polypeptide of SEQ ID NO:27.

Group XVII, claim(s) 16 (in part) and 40, drawn to a transgenic animal.

Group XVIII, claim(s) 18 and 21, drawn to a process for the production of L-ascorbic acid using a recombinant organism.

Group XIX, claim(s) 19 and 41, drawn to a process for the production of L-ascorbic acid using a non-recombinant organism.

Group XX, claim(s) 20, drawn to a process for the production of L-ascorbic acid using a polypeptide having L-sorbosone dehydrogenase activity.

Group XXI, claim(s) 23, drawn to a method of making L-sorbosone dehydrogenase using non-recombinant organism.

Group XXII, claim(s) 24-39 and 42, drawn to a process for the production of vitamin C.

The inventions listed as Groups I-XXII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Special technical feature of Groups I-VIII is a polynucleotide encoding a polypeptide having L-sorbosone dehydrogenase activity. Special technical feature of Groups IX-XVI is a polypeptide having L-sorbosone dehydrogenase activity. Both L-sorbosone dehydrogenase and a polynucleotide encoding thereof are known in the art and therefore, do not make a contribution over the prior art (see PCT-237). The special technical feature of a transgenic animal of Group XVII is a live animal comprising a great number of non-isolated molecules participating in a great number of reactions. Methods for producing ascorbic acid and vitamin C are known in the art and include using non-recombinant and recombinant microorganisms as well as isolated substrates and enzymes.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance,

whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai, In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Slobodyansky, PhD whose telephone number is 571-272-0941. The examiner can normally be reached on M-F 10:00 - 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nashaat T. Nashed, PhD can be reached on 571-272-0934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Elizabeth Slobodyansky/

Elizabeth Slobodyansky, PhD
Primary Examiner
Art Unit 1652

April 28, 2008